

IV. AMENDMENTS TO THE DRAWINGS

- THE DRAWINGS OF THE PATENT IS HEREBY AMENDED AS SET FORTH BELOW:
 - *There are no amendments to the drawings.*

V. REMARKS/ARGUMENTS

- STATUS OF CLAIMS

Claims 20 to 27 are pending. Claims 1 to 19 and 28 – 31 are canceled, without prejudice.

- RESTRICTION/ELECTION

- Examiner's Stance

The Examiner alleges that claim amendments pertaining to claims 20 to 30, submitted on November 20, 2007, and identified as Group II, do not relate to the same general inventive concept as claims 20 to 31, previously submitted, and identified as Group I. The Examiner has asserted that restriction is appropriate, that the Group I claims have been constructively elected, and that the Group II claims are withdrawn.

- Applicant's Response

The Applicant elects the Group I claims. Applicant has amended Group I claims, as submitted November 22, 2005, in response to Examiner's grounds for rejection (Office Action of June 29, 2007). The Applicant's grounds for traversing the Examiner's rejections are presented infra.

REJECTIONS IN PREVIOUS OFFICE ACTION

REJECTIONS UNDER 35 U.S.C. §103(a)

- Examiner's Stance

In the previous Office Action, the Examiner has rejected claims 20 through 27, under 35 U.S.C. §103(a), as being obvious in view of WO 02/095082, GB 2355990, or U.S. 6,726,877 to Eccles. Specifically, the Examiner states that WO 02/095082 discloses the same Ag alloy (page 1, lines 25-29 and page 11, lines 29-31). The Examiner further alleges that GB 2355990 discloses another claimed Ag alloy (page 2, lines 8-16 and page 4, lines 20-23). And, in

addition, the Examiner alleges that Eccles (U.S. Patent 6,726,877) discloses another claimed alloy (col. 1; line 27 and col 2, lines 55-65). The Examiner states that the prior art compounds bracket the Applicant's claimed compounds and that obviousness typically exists when ranges of a claimed composition overlap the ranges disclosed in prior art.

The Examiner further rejects claims 28 through 31, under 35 U.S.C. §103(a), as being obvious in view of WO 02/095082, GB 2355990, or US 6,726,877 to Eccles, in further view of GB 1130540. The Examiner alleges that while the first three cited prior art references do not teach surface treating of the silver alloy, GB 1130540 teaches surface treatment with stearyl and cetyl mercaptans and thioglycollates.

- Applicants' Response

With respect to claims 20 through 27, Applicant notes that the basis for factual inquiries, with respect to findings of obviousness under 35 U.S.C. 103, are set forth in accordance with *Graham v. John Deere Co.*, 383 U.S. 1, 148 U.S.P.Q. 459 (1966), the primary indicia being summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or non-obviousness.

In determining the scope and contents of the prior art (step 1 of the primary indicia), the following paragraphs are extracted from WO 02/095082 indicating that Ag concentrations between 96% and 98% are suitable for the practice of the prior art:

The ternary Ag-Cu-Ge alloys and quaternary Ag-Cu-Zn-Ge alloys that can suitably be prepared by the method of the present invention are those having a silver content of at least 30%, preferably at least 60%, more preferably at least

80%, and most preferably at least 92.5%, by weight of the alloy, up to a maximum of no more than 98%, preferably no more than 97%. (page 10; lines 13-17).

In a preferred embodiment, the alloy is a ternary alloy consisting, apart from impurities and any grain refiner, of 80% to 96% silver, 0.1 % to 5% germanium and 1 % to 19.9% copper, by weight of the alloy. (page 12; lines 21-23).

In a more preferred embodiment, the alloy is a ternary alloy consisting, apart from impurities and grain refiner, of 92.5% to 98% silver, 0.3% to 3% germanium and 1% to 7.2% copper, by weight of the alloy, together with 1 ppm to 40 ppm boron as grain refiner. (page 12; lines 25-27)

In a further preferred embodiment, the alloy is a ternary alloy consisting, apart from impurities and grain refiner, of 92.5% to 96% silver, 0.5% to 2% germanium, and 1% to 7% copper, by weight of the alloy, together with 1 ppm to 40 ppm boron as grain refiner. (page 12; lines 29-31).

The claims of WO 02/095082 similarly define the maximum Ag concentration in the range of 96% to 98% as follows:

20. A method according to claim 19 wherein the ternary alloy consists, apart from impurities and any grain refiner, of 80 to 96% silver, 0.1 to 5% germanium and 1 to 19.9% copper, by weight of the alloy.

21. A method according to claim 19 wherein the ternary alloy consists, apart from impurities and grain refiner, of 92.5 to 98% silver, 0.3 to 3% germanium, and 1 to 7.2% copper, by weight of the alloy, together with 1 ppm to 40 ppm boron as grain refiner.

22. A method according to claim 19 wherein the ternary alloy consists, apart from impurities and grain refiner, of 92.5 to 96% silver, 0.5 to 2% germanium,

and 1 to 7% copper, by weight of the alloy, together with 1 ppm to 40 ppm boron as grain refiner.

In contrast to the prior art, the instant application requires that the Ag content not exceed 95.5% as stated in claim 20 and U.S patent Application Publication No. 2007/0009375:

[0019] In the above alloy, preferred Ag contents range from about 94.0 to about 95.5 wt %, lower values being preferred for reducing the expense of the silver used. It has been found, surprisingly, that if the Ag content is increased to 96 wt % it is difficult to avoid firestain even at high Ge contents.

Thus, with reference to the primary indicia for a finding of obviousness, step 1 and step 2 are not satisfied in that the cited prior art does not teach the limitation of Ag concentration of no greater than 95.5% to avoid firestain. Furthermore, with respect to step 3 of the indicia, one of ordinary skill would not be expected to recognize this critical dependency based on the absence of mention in the cited prior art.

WO 02/095082 discloses no more than the theoretical possibility of increasing the silver content of Ag-Cu-Ge based alloys above the Sterling standard of 92.5 wt%. There is no disclosure or suggestion that such alloys might exhibit an overall better combination of properties to justify the increased silver content. The Examiner alleges that the prior art discloses alloys bracketing the claimed alloys and that a skilled person would consider the disclosed alloys in the expectation that alloys of similar composition would have similar properties. What the Applicants have discovered is that this is not the case, and that it is easier to post-treat the claimed alloys during jewelry manufacturing without the problems encountered when using alloys with silver content at or close to the standard Sterling value.

With respect to GB 235590, similar arguments may be made in the context of the primary indicia for obviousness. In GB 235590, the most restrictive allowed Ag concentration is given in claim 6, as follows:

6. An alloy according to any preceding claim, wherein the silver content is 92.5% or greater.

Furthermore, the subject of firestain is not addressed anywhere in GB 235590.

With respect to Eccles (United States Patent No. 6,726,877), no teaching or claim of the special firestain related properties associated with an Ag concentration range of 94.0% to 95.5% is present.

In addition, with respect to independent claim 20, an alloy is claimed comprising, in part, 93.5 wt% to 95.5 wt% Ag, in combination with, copper and germanium in a specific ratio by weight of from 4:1 to 3:1. The unexpected results accruing from this combination are disclosed in the specification:

“ [0016] In particular, the applicants have become aware of the desirability of reducing or avoiding the formation and/or melting of the above mentioned binary copper-germanium eutectic which melts at 554.degree. C...” and, in the same paragraph, *“[B]y increasing the silver content above the level for Sterling but less than that for Britannia it is possible to produce an alloy in which the above binary eutectic either does not form or gives rise to reduced problems in subsequent heat treatment. This provides alloys with a much greater inherent stability under thermal processing. The germanium addition prevents the reduction in hardness that would be seen in a silver-copper alloy of this composition. The alloy also shows resistance to tarnishing, even under very arduous test conditions.”(underline added)*

This limitation is not claimed, taught, or suggested in WO 02/095082, GB 2355990 or US Patent 6,726,877, taken singly or in combination and thus does not provide an adequate basis for a *prima facie* case of obviousness.

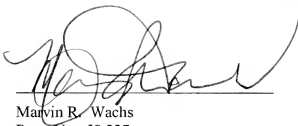
With respect to claims 28 through 31, the Applicant has cancelled these claims, without prejudice, thereby making the rejection of these claims moot.

CONCLUSION TO REMARKS

Applicant asserts that this response is fully responsive to the Restriction Requirement. In view of the above, it is respectfully submitted that the subject matter of the pending claims is patentable over the references cited. Applicant respectfully seeks early allowance of the pending claims.

Dated: April 7, 2008

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'Marvin R. Wachs', is written over a horizontal line.

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VI. APPENDIX

- *No appendix is intended to be attached*